

Exhibit C-8

Invalidity Claim Chart for Munje against U.S. Patent No. 10,109,028

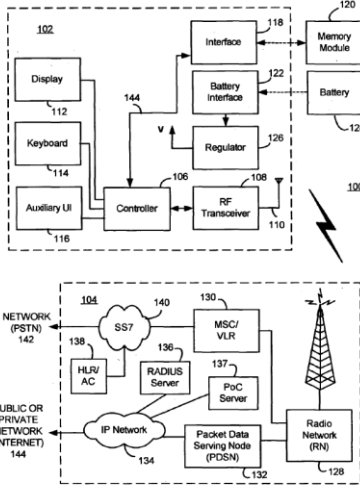
Charted Reference:

- U.S. Patent Application Publication No. 2006/0003740 A1 (“Munje”) anticipates and/or renders obvious, along or in combination or one or more references identified below, the claims of U.S. Patent No. 10,109,028 (“the ’028 patent”).

This claim chart is based on Facebook and Instagram’s (“Facebook”) current understanding of the asserted claims, the implicit assertions of claim scope that can be discerned from Voxer’s vague and overbroad infringement contentions, and Facebook’s investigation to date. Facebook is not adopting Voxer’s apparent constructions, nor is Facebook admitting to the accuracy of any particular construction. Facebook reserves all rights to amend this invalidity claim chart in light of any claim-construction developments or any amendments to Voxer’s infringement contentions and as permitted by any orders in this case, including without limitation the Order Governing Proceedings (March 2, 2020). Further, as discovery is ongoing and Facebook continues to seek discovery from third parties regarding the references identified in Facebook’s invalidity contentions as well as other potential prior art, Facebook reserves the right to revise its invalidity contentions as appropriate in view of any ongoing discovery.

The claim chart below identifies where each limitation of each asserted claim of the ’028 patent can be found in Munje. The citations provided below are exemplary, rather than exhaustive, and Facebook reserves the right to rely upon any other portion of the cited references.

Claim	Exemplary Evidence of Anticipation and/or Obviousness
<p>1. An embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium, wherein the embeddable communications software module is arranged to:</p>	<p>To the extent the preamble is limiting, Munje discloses an embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium. <i>See</i> citations for claim 1[a]-[i], <i>see also, e.g.:</i></p> <p>“PTT voice communications are different from traditional cellular telephony communications in that the voice communications are generally immediate and unannounced. An end user of the mobile station may be busy or caught "off-guard" and not listening to the initial communication. Thus, the end user may not hear at least the initial PTT voice communication. This is inconvenient and often wasteful of bandwidth resources, as the talk groups may have to respond to indicate that they did not hear the initial PT communication.” Munje, at [0005]</p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0007]</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed</p>

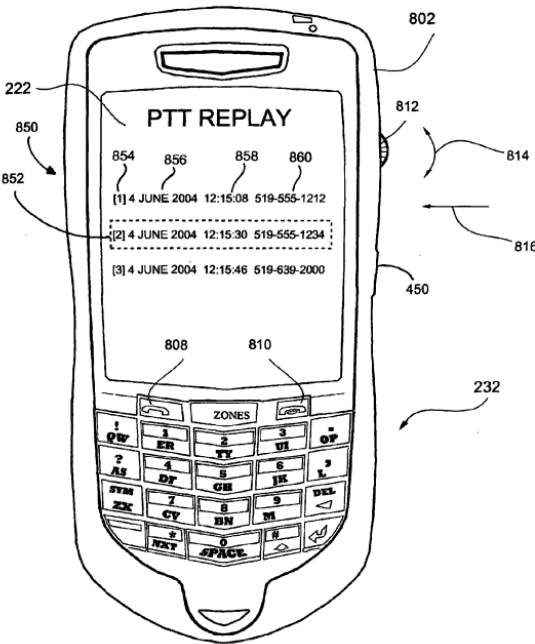
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	<p>automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and deque messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p> <p>FIG. 1</p>  <p>“FIG. 1 is a block diagram of a communication system 100 which includes a mobile station 102 which communicates through a wireless communication network 104. Mobile station 102 preferably includes a visual display 112, a keyboard 114, and perhaps one or more auxiliary user interfaces (UI) 116, each of which is coupled to a controller 106. Controller 106 is also coupled to radio frequency (RF) transceiver circuitry 108 and an antenna 110.” Munje, [0021].</p> <p>“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem.</p>

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	<p>Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p> <p>“Mobile station 102 communicates in and through wireless communication network 104, which is preferably a cellular telecommunications network.” Munje, at [0026].</p> <div data-bbox="613 560 1150 938" data-label="Diagram"> </div> <p>“FIG. 2 is a detailed block diagram of a preferred mobile station 202. Mobile station 202 is preferably a two-way communication device having at least voice and advanced data communication capabilities, including the capability to communicate with other computer systems. Depending on the functionality provided by mobile station 202, it may be referred to as a data messaging device, a two-way pager, a cellular telephone with data messaging capabilities, a wireless Internet appliance, or a data communication device (with or without telephony capabilities). Mobile station 202 may communicate with any one of a plurality of base station transceiver systems 200 within its geographic coverage area. Mobile station 202 selects or helps select which one of base station transceiver systems 200 it will communicate with, as will be described in more detail later in relation to FIGS. 3 and 4.” Munje, [0032].</p>

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	<p>“Network access is associated with a subscriber or user of mobile station 202, and therefore mobile station 202 requires a memory module 262, such as a Subscriber Identity Module or "SIM" card or a Removable User Identity Module (R-UIM), to be inserted in or connected to an interface 264 of mobile station 202 in order to operate in the network. Alternatively, memory module 262 may be a non-volatile memory which is programmed with configuration data by a service provider so that mobile station 20 may operate in the network. Since mobile station 202 is a mobile battery-powered device, it also includes a battery interface 254 for receiving one or more rechargeable batteries 256. Such a battery 256 provides electrical power to most if not all electrical circuitry in mobile station 202, and battery interface 254 provides for a mechanical and electrical connection for it. The battery interface 254 is coupled to a regulator (not shown in FIG. 2) which provides power V+ to all of the circuitry.” Munje, [0035].</p> <p>“Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.” Munje, [0036].</p> <p>“Microprocessor 238, in addition to its operating system functions, preferably enables execution of software applications on mobile station 202. A predetermined set of applications which control basic device operations, including at least data and voice communication applications, will normally be installed on mobile station 202</p>

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	<p>during its manufacture. A preferred application that may be loaded onto mobile station 202 may be a personal information manager (PIM) application having the ability to organize and manage data items relating to user such as, but not limited to e-mail, calendar events, voice mails, appointments, and task items. Naturally, one or more memory stores are available on mobile station 202 and SIM 256 to facilitate storage of PIM data items and other information.” Munje, [0037].</p> <p>The PIM application preferably has the ability to send and receive data items via the wireless network. In a preferred embodiment, PIM data items are seamlessly integrated, synchronized, and updated via the wireless network, with the mobile station user's corresponding data items stored and/or associated with a host computer system thereby creating a mirrored host computer on mobile station 202 with respect to such items. This is especially advantageous where the host computer system is the mobile station user's office computer system. Additional applications may also be loaded onto mobile station 202 through network, an auxiliary I/O subsystem 228, serial port 230, short-range communications subsystem 240, or any other suitable subsystem 242, and installed by a user in RAM 226 or preferably a non-volatile store (not shown) for execution by microprocessor 238. Such flexibility in application installation increases the functionality of mobile station 202 and may provide enhanced on-device functions, communication-related functions, or both. For example, secure communication applications may enable electronic commerce functions and other such financial transactions to be performed using mobile station 202.” Munje, [0038].</p>

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	<p>(PCM) data signals. This digital voice data is passed to CODEC 404, which typically includes conventional voice processing circuits such as one or more amplifiers, one or more filters, and a digital-to analog (DIA) converter. Thus, CODEC 404 converts digital voice data into analog voice signals and has an output that provides the analog voice signals. The output of CODEC 404 is coupled to an input of audio circuit 402, which includes circuitry for biasing, filtering, and amplifying the analog voice signals. This produces audible voice signals at speaker 234.” Munje, at [0052].</p> <p>“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position "A" is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position "B" is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a switch position "D" to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position "C" which opens the switch so that no compressed voice data is received by memory 412.” Munje, at [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, at [0054].</p> <p>“FIG. 5 is an illustrative representation of memory 412 of the schematic block diagram of FIG. 4. As illustrated,</p>

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	<p>memory 412 which stores voice data is a circular buffer memory of the First-In-First-Out (FIFO) type. Each square in FIG. 5 represents a separate memory location or block which is separately addressable. Using circular buffering, voice data is saved in a consecutive fashion in memory 412 such that older voice data is written over by newer voice data in a loop-type fashion. Note that the size of memory 412 is sufficient to buffer an amount of voice data for at least one typical PTT voice communication.” Munje, at [0055].</p>  <p style="text-align: center;">FIG. 8</p>

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	<p>“The plurality of keys also include a PTT voice communication switch 450. In this embodiment, PTT switch 450 is located on a right hand side of housing 802. When PTT switch 450 is depressed by an end user, the mobile station initiates a PTT voice communication through the wireless network. After PTT switch 450 depression, audible voice signals are received at the microphone of the mobile station and voice signals are transmitted through the wireless network and heard at certain other mobile stations. Unlike traditional telephone calls, PTT voice communications are relatively immediate and do not require the entry or selection of the recipient's telephone number.” Munje, at [0060].</p>

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	<div data-bbox="619 300 1039 966" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 612 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632 </pre> </div> <p data-bbox="877 479 945 503">FIG. 6</p> <p data-bbox="598 1031 2005 1282"> “FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066]. </p> <p data-bbox="598 1356 1942 1421"> “Beginning at a start block 602 of FIG. 6, a processor of the mobile station identifies whether a PTT key message has been received through the wireless transceiver (step 604 of FIG. 6). A PTT key message is </p>

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	<p>associated with a PTT press of the sending mobile station in the wireless network and signifies a beginning of a PTT voice communication. If the PTT key message has not yet been received, the processor continues to monitor for PTT key messages. If a PTT key message has been received at step 604, an incoming PTT voice communication from the sending mobile station is expected to follow. The processor receives, through the wireless transceiver, a sender identification from the mobile station which will be transmitting the PTT voice communication (step 606 of FIG. 6). The sender identification uniquely identifies the mobile station and may be a telephone number, an IP address, or a direct connect ID, as examples. The processor causes its voice and audio circuits to be enabled (step 608). The voice and audio circuits may include voice decompressor 406, CODEC 404, audio circuit 402, and speaker 234 (FIG. 4).” Munje, [0067].</p> <p>“The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved "bit flag" in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068].</p> <p>“During the receipt and processing of this voice data, the processor monitors whether a PTT dekey message is received (step 614 of FIG. 6). A PTT dekey message corresponds to a PTT release of the sending mobile station and signifies an end of the PTT voice communication. If the PTT dekey message has not yet been received at step 614, the voice data continues to be received and processed by the mobile station. If the PTT dekey is received at step 614, then the processor causes the voice and audio circuits to be disabled (step 616 of FIG. 6) and ceases any further voice processing. The method repeats again starting at step 604.” Munje, at [0069].</p>

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	<p>“The processor then sets a start marker at the current input pointer address to mark the beginning of the PTT voice communication (step 624 of FIG. 6). See start marker 502 ("A") of FIG. 5, for example. Next, the voice data for the PTT voice communication is received through the wireless transceiver (step 626 of FIG. 6). The voice data is processed so that audible voice signals are heard through the speaker of the mobile station. In particular, RF signals carrying the voice data may be processed through receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 of FIG. 4. Advantageously, the voice data of the PTT voice communication is also simultaneously saved in memory (step 628 of FIG. 6). Preferably, the circular buffer memory 412 of FIGS. 4-5 is utilized for the recording of the PTT voice data as previously described. The first voice data item of the PTT voice communication is stored at the current location of the input pointer address, and subsequent voice data items are stored at the next available locations in sequence.” Munje, [0071].</p> <p>“During the continuous receipt, processing, and storage of voice data of the PTT voice communication, the processor monitors whether a PTT deque message has been received (step 630 of FIG. 6). If the PTT deque message has not yet been received as tested in step 630, the voice data continues to be received, processed, and stored in the memory in a sequential fashion. If the PTT deque is received as tested in step 630, however, then the processor sets an end marker at the current input pointer address (step 632 of FIG. 6). The end marker signifies the end of the PTT voice communication. See end marker 504 ("A") of FIG. 5, for example. The processor then sets the switches so that the voice data storage is terminated (step 634 of FIG. 6). The voice and audio circuits are disabled by the processor (step 616 of FIG. 6).” Munje, [0072].</p> <p>“FIG.7 is a flowchart for describing a method of providing replay of previously recorded PTT voice communications in the mobile station. The recorded PTT voice communications may be those stored in accordance with the previously described flowchart of FIG. 6. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile-station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 7 will be described in combination with the components of FIGS. 4-5 and 8.” Munje, [0075].</p>

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	<p>FIG. 7</p> <pre> graph TD 702([Start]) --> 704[Display List Of Stored PTT Voice Indicators With Identification] 704 --> 706{Exit?} 706 -- Yes --> 750[Other Processing] 706 -- No --> 708{PTT Replay?} 708 -- Yes --> 710[Set Switch To Play PTT Voice Communications From Memory] 710 --> 712[Identify Selected PTT Voice Indicator And Set Output Pointer Accordingly] 712 --> 714[Enable Voice And Audio Circuits For Playing Selected PTT Voice] 714 --> 716[Play Audio Based On (Next) Voice Data] 716 --> 718{Output Pointer = End Marker?} 718 -- Yes --> 720[Disable Voice And Audio Circuits] 720 --> 722[Set Switch To Terminate Retrieval] 722 --> 704 718 -- No --> 716 </pre> <p>“Beginning at a start block 702 of FIG. 7, the processor of the mobile station causes a list of stored PTT voice indicators to be displayed in its visual display (step 704 of FIG. 7). Preferably, each stored PTT voice communication is associated with a sender identification and other information which is displayed along with the stored PTT voice indicator. Most preferably, the information and format shown and described in relation to FIG. 8 is utilized. Back to FIG. 7, the processor then monitors user input signals at the user interface. The</p>

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	<p>processor identifies whether an "exit" selection has been detected at the user interface (step 706 of FIG. 7). If so, the processor causes other processing to occur (step 750 of FIG. 7) which is unrelated to the present application. The processor also identifies whether a PTT replay selection has been selected at the user interface (step 708 of FIG. 7). If not, the processor continues monitoring for user inputs at the user interface. Preferably, the selection at the user interface utilizes the techniques previously described in relation to FIG. 8." Munje, at [0076].</p> <p>"If the processor identifies that a PTT replay has been selected at step 708, then the processor causes a switching operation to be performed so that a PTT voice communication stored in the memory can be played or replayed (step 710 of FIG. 7). The processor identifies the PTT voice indicator selected by the end user, and sets the output pointer address to point to the memory location associated with the start marker of the PTT voice communication (step 712 of FIG. 7). The processor also enables the voice and audio circuits for playing the selected PTT voice communication (step 714 of FIG. 7). The voice and audio circuits may include voice decompressor 406, CODEC 404, and audio circuit 402 of FIG. 4. For playing the voice signals, the processor repeatedly increments (or decrements) the output pointer address to retrieve each next voice data item from the memory for processing such that audible voice signals are heard from the speaker (step 716 of FIG. 7). Each voice data item may be compressed voice data which is processed by voice compressor 406, CODEC 404, and audio circuit 402 of FIG. 4. Such operation is performed for all stored voice data of the PTT voice communication until the output pointer address matches the end marker (step 718 of FIG. 7). Once the end marker is reached, the PTT voice communication has ended. The processor disables the voice and audio circuits (step 720) and causes the switches to be set so as to terminate the retrieval of voice data (step 722 of FIG. 7). The method may repeat again for any subsequent PTT voice replays." Munje, at [0077].</p> <p>"Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and dekey messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session. Note that recording of voice is not performed (or performed automatically) for cellular telephone calls, which can be answered or unanswered after an audible or</p>

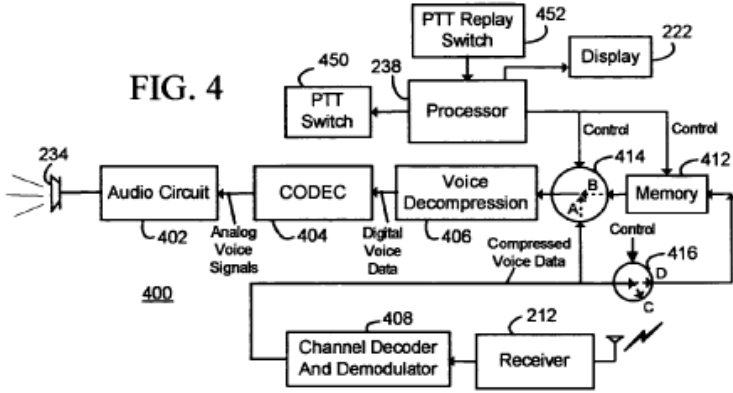
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	<p>tactile alert at the mobile station.” Munje, at [0078].</p> <p>“A wireless communication system of the present application includes a wireless communication network; a Push-to-talk (PTT) server coupled in the wireless network; and one or more mobile stations which operate in the wireless communication network. Each mobile station includes a wireless transceiver which operates with the wireless communication network; one or more processors; memory coupled to the one or more processors; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the PTT voice communication. The one or more processors are operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, at [0080].</p> <p>“A method of the present application includes the steps of receiving a PTT key message from a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message from the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. A computer program product of the present application includes a storage medium; computer instructions stored in the storage medium; where the computer instructions are executable by one or more processors for performing the method previously described.” Munje, at [0081].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of</p>

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	<p>the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>“The computer program product of claim 19, wherein the computer instructions are further executable for: in response to detecting a user actuation of a switch, causing the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output.” Munje, claim 20.</p>

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	<p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Felt; Katis 2; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Siemens Open Space; Android-recorder.</p>
<p>1[a] provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through the API;</p>	<p>Munje discloses an embeddable communications software module that is arranged to provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through the API. <i>See, e.g.</i>:</p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, at [007].</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data.” Munje, at [007].</p> <p>“The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, at [007].</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the</p>

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	<p>voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and dekey messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p> <p>“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p> <div data-bbox="613 922 1150 1299"> <p>FIG. 2</p> </div> <p>“Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1)</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.” Munje, [0036].</p> <p>“Microprocessor 238, in addition to its operating system functions, preferably enables execution of software applications on mobile station 202.” Munje, at [0037].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	 <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 284 1039 950" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 604 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632 </pre> </div> <p data-bbox="877 462 945 487">FIG. 6</p> <p data-bbox="598 998 2005 1250"> “FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066]. </p> <p data-bbox="598 1291 2005 1388"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>as a saved “bit flag” in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Felt; Freer p. 31; Minamide [0055]; Belanger; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space.</p> <p>Moreover, if a combination were required, Munje renders this claim limitation obvious in view of numerous prior art references that disclose an application programming interface (API) that allows the embeddable</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through the API. Long before the alleged invention of the '028 patent, it was well known that an application programming interface could allow a software module to receive API inputs from the software application, with the software module and the software application communicating through the API.</p> <p>The Pelttari reference, for instance, discloses a communications software module and a software application communicating through an API. The Pelttari reference states, for example, that “[a]s an example, the category of the audio content is identified from the identification parameters using an API.” 028 chart for Pelttari at 0045. <i>See</i> 028 chart for Pelttari at Figs. 2-5, 45-46, 49, 61, 62, 65, 67, 75-77, 81, 102-3, 106-9, 122.</p> <p>The Rand reference also discloses a communications software module and a software application communicating through an API. The Rand reference states, for example, that “FIG. 9a illustrates an embodiment of the invention including a possible relationship between a device, operating system, and a software application serving as the software 40 component of the invention (“The Application”). The Application could integrate with third party VoIP and Audio Apps through an Application Programming Interface (API), Software Development Kit (SDK), or other means.” Rand reference 21:38-44. <i>See also, e.g.</i>, 028 chart for Rand reference at 16:17-28; 21:38-46; Fig. 9A.</p> <p>The Rensin reference also discloses a communications software module and a software application communicating through an API. The Rensin reference states, for example, that “[a]ccording to one embodiment of the present invention, the server software 14 includes its own application programming interface to allow for integration with a variety of third-party products and systems, such as existing third-party imagery databases, video surveillance tools and infrastructures, third-party alerting and messaging systems, and artificial intelligence solutions, such as facial and object recognition applications.” 028 chart for Rensin at 0383. <i>See also, e.g.</i>, 028 chart for Rensin reference at [0022], [0032-35], [0086], [0110], [0164], [0383], Claims 1-2, 4-10.</p> <p>The Milgramm reference also discloses a communications software module and a software application</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>communicating through an API. The Milgramm reference states, for example, that “For example, when signing up for the live stream detection and notification service provided by the centralized server 101, the user provides user registration information to the centralized server 101. Such user registration information can include basic information about the user such as name, user ID, e-mail address and phone number. The user registration information can later be used to determine the method of notifying the user (e.g., via e-mail or via SMS sent to the phone number).” Milgramm reference at 0028. <i>See also, e.g.</i>, 028 chart for Milgramm reference at [0006-13], [0027], [0056], [0059], Figs. 1-3, 5.</p> <p>The Jones reference also discloses a communications software module and a software application communicating through an API. The Jones reference states, for example, that “As described below in detail with reference to one or more of the embodiments illustrated in the drawings (as well as the above-referenced international patent application), the conference interface may be configured to provide any desirable content and/or functionality and may support various user interface and/or conferencing features, including conference record/playback features, an “always on” record mode, and various methods for enabling a participant to join a conference already in progress. “ Jones reference at 0026. <i>See also, e.g.</i>, 028 chart for Jones reference at [0053], [0059].</p> <p>The Jang reference also discloses a communications software module and a software application communicating through an API. The Jang reference states, for example, that “[t]he control unit 220 receives a selection signal entered via the keypad input unit 240 by using the interface program and recognizes the selection signal as a broadcasting control selection signal.” Jang 0017. <i>See also, e.g.</i>, 028 chart for Jang reference at Abstract, [0009-10], [0016-25], [0027], Claims 1-4, Figs. 2-3.</p> <p>A person of ordinary skill in the art would understand that an API is a commonly used mechanism through which software programs and modules communicate. For example, the ‘028 patent itself references prior art to the patent that utilized an API to enable a software module to receive API inputs from a software application, such as Riemann (2006/0095332) at Figs. 1-2, Abstract, 2, 4-5, 13, 21-23.42-45.</p> <p>To the extent a combination is required, it would have been obvious for one of ordinary skill to combine Munje with any of the references described above. One of ordinary skill would have been motivated to do so, among</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>other reasons, to achieve the benefit of providing a means for the embeddable communication software module and the software application to communicate. Munje and the references described above belong to the same field of endeavor (communication by means of streaming media), and all describe systems and methods for creating, transmitting, receiving, rendering, and/or storing streaming media. To the extent a combination is required, it would have been obvious person of ordinary skill in the art to combine Munje with any of the references discussed above, and such a person would have been motivated to do so. Applying the teachings of such references would have involved nothing more than the application of known techniques to a known method ready for improvement to yield predictable results.</p>
<p>1[b] receive an incoming message behavior policy from the software application, wherein the incoming message behavior policy controls how the embeddable communications software module responds to incoming messages;</p>	<p>Munje discloses an embeddable communications software module that is arranged to receive an incoming message behavior policy from the software application, wherein the incoming message behavior policy controls how the embeddable communications software module responds to incoming messages. <i>See, e.g.:</i></p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; and a user interface which includes a Push-To Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, Abstract.</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data.” Munje, at [007].</p> <p>“The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, at [007].</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="611 414 1337 802"> </div> <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p>“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a</p>

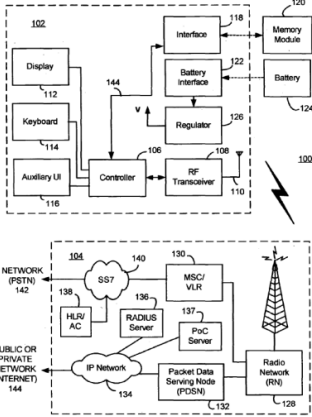
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory 412.” Munje, [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, [0054].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 284 1039 950" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 604 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632 </pre> </div> <p data-bbox="877 462 945 487">FIG. 6</p> <p data-bbox="598 1031 2005 1291"> “FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066]. </p> <p data-bbox="598 1323 2005 1388"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved “bit flag” in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068].</p> <p>“During the receipt and processing of this voice data, the processor monitors whether a PTT dekey message is received (step 614 of FIG. 6). A PTT dekey message corresponds to a PTT release of the sending mobile station and signifies an end of the PTT voice communication. If the PTT dekey message has not yet been received at step 614, the voice data continues to be received and processed by the mobile station. If the PTT dekey is received at step 614, then the processor causes the voice and audio circuits to be disabled (step 616 of FIG. 6) and ceases any further voice processing. The method repeats again starting at step 604.” Munje, [0069].</p> <p>“If the processor identifies that the recording feature is enabled as tested in step 610, however, conventional PTT voice communication processing and recording of the voice data in memory are performed. To begin, the processor performs a switching operation so that the upcoming voice data of the PTT voice communication will be stored in memory (step 618 of FIG. 6). Preferably, memory 412 of FIGS. 4-5 is utilized. The processor also identifies the sender identification (previously received) and stores it in memory in association with the upcoming PTT voice data (step 620 and FIG. 6). Referring to FIG. 5, a sender identification table 550 may be stored in memory for associating sender identifications (e.g. telephone numbers) with corresponding PTT voice communications. Sender identification table 550 in FIG. 5 is shown to have four sender identifications (which correspond to four recorded PTT voice communications) including a sender identification A 570 and a sender identification B 572. Next, a PTF sequence counter, a date stamp, and/or time stamp, as well as any other pertinent information, may also be stored in association with the voice data as well (step 622 of FIG. 6). This information may be received through the wireless transceiver from the sending mobile station or the wireless network, or obtained through applications running in the receiving mobile station.” Munje, [0070].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Felt; Katis 2; Yannakopoulos Fig. 6; Freer p. 23-24; Kono [0014]; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura.</p>
<p>1[c] receive an incoming message from an remote communications device;</p>	<p>Munje discloses an embeddable communications software module that is arranged to receive an incoming message from an remote communications device. <i>See, e.g.</i>:</p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-ToTalk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>following the PTT key message; and receive a PTT deque message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at Abstract.</p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0007]</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data.” Munje, at [007].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="659 277 701 293">FIG. 1</p>  <p data-bbox="600 764 2028 943">“FIG. 1 is a block diagram of a communication system 100 which includes a mobile station 102 which communicates through a wireless communication network 104. Mobile station 102 preferably includes a visual display 112, a keyboard 114, and perhaps one or more auxiliary user interfaces (UI) 116, each of which is coupled to a controller 106. Controller 106 is also coupled to radio frequency (RF) transceiver circuitry 108 and an antenna 110.” Munje, [0021].</p> <p data-bbox="600 984 2028 1195">“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p> <p data-bbox="600 1235 2028 1308">“Mobile station 102 communicates in and through wireless communication network 104, which is preferably a cellular telecommunications network.” Munje, at [0026].</p>

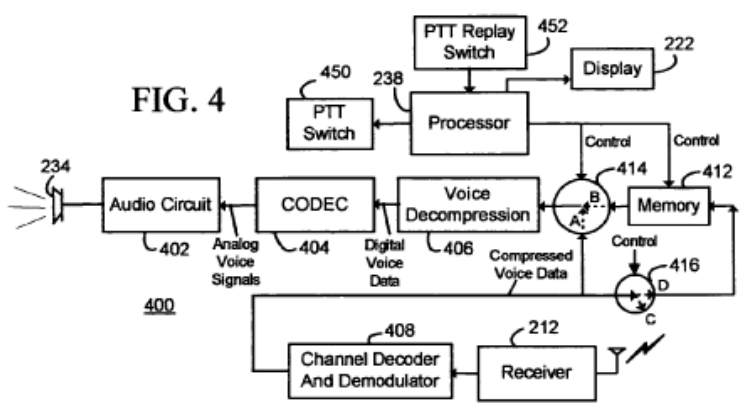
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="611 289 1150 667" data-label="Diagram"> </div> <p>FIG. 2 is a detailed block diagram of a preferred mobile station 202. Mobile station 202 is preferably a two-way communication device having at least voice and advanced data communication capabilities, including the capability to communicate with other computer systems. Depending on the functionality provided by mobile station 202, it may be referred to as a data messaging device, a two-way pager, a cellular telephone with data messaging capabilities, a wireless Internet appliance, or a data communication device (with or without telephony capabilities). Mobile station 202 may communicate with any one of a plurality of base station transceiver systems 200 within its geographic coverage area. Mobile station 202 selects or helps select which one of base station transceiver systems 200 it will communicate with, as will be described in more detail later in relation to FIGS. 3 and 4. Munje, [0032].</p> <p>“Mobile station 202 will normally incorporate a communication subsystem 211, which includes a receiver 212, a transmitter 214, and associated components, such as one or more (preferably embedded or internal) antenna elements 216 and 218, local oscillators (LOs) 213, and a processing module such as a digital signal processor (DSP) 220. Communication subsystem 211 is analogous to RF transceiver circuitry 108 and antenna 110 shown in FIG. 1. As will be apparent to those skilled in field of communications, particular design of communication subsystem 211 depends on the communication network in which mobile station 202 is intended to operate.” Munje, [0033].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“Mobile station 202 may send and receive communication signals over the network after required network registration or activation procedures have been completed.” Munje, at [0034].</p> <p>“Beginning at a start block 602 of FIG. 6, a processor of the mobile station identifies whether a PTT key message has been received through the wireless transceiver (step 604 of FIG. 6). A PTT key message is associated with a PTT press of the sending mobile station in the wireless network and signifies a beginning of a PTT voice communication. If the PTT key message has not yet been received, the processor continues to monitor for PTT key messages. If a PTT key message has been received at step 604, an incoming PTT voice communication from the sending mobile station is expected to follow. The processor receives, through the wireless transceiver, a sender identification from the mobile station which will be transmitting the PTT voice communication (step 606 of FIG. 6). The sender identification uniquely identifies the mobile station and may be a telephone number, an IP address, or a direct connect ID, as examples. The processor causes its voice and audio circuits to be enabled (step 608). The voice and audio circuits may include voice decompressor 406, CODEC 404, audio circuit 402, and speaker 234 (FIG. 4).” Munje, at [0067].</p> <p>“During the receipt and processing of this voice data, the processor monitors whether a PTT dekey message is received (step 614 of FIG. 6). A PTT dekey message corresponds to a PTT release of the sending mobile station and signifies an end of the PTT voice communication. If the PTT dekey message has not yet been received at step 614, the voice data continues to be received and processed by the mobile station. If the PTT dekey is received at step 614, then the processor causes the voice and audio circuits to be disabled (step 616 of FIG. 6) and ceases any further voice processing. The method repeats again starting at step 604.” Munje, at [0069].</p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is</p>

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	<p>operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0079].</p> <p>“A method of the present application includes the steps of receiving a PTT key message from a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message from the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. A computer program product of the present application includes a storage medium; computer instructions stored in the storage medium; where the computer instructions are executable by one or more processors for performing the method previously described.” Munje, [0081].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Felt; Katis 2; Nguyen [9:43]; Bluvband [0017]; Pacord [16:10]; Yannakopoulos [0028]; Uehara [0026]; Eto [0051]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>
<p>1[d] progressively store the incoming message as it is received;</p>	<p>Munje discloses an embeddable communications software module that is arranged to progressively store the incoming message as it is received. <i>See, e.g.</i>:</p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, at [007].</p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0007]</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and dekey messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="735 389 840 430">FIG. 4</p>  <p data-bbox="598 820 2026 1071">“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p data-bbox="598 1112 2026 1396">“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a</p>

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	<p>switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory 412.” Munje, [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, [0054].</p>

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	<div data-bbox="688 305 1423 889" data-label="Diagram"> </div> <p data-bbox="598 1011 2016 1227"> “FIG. 5 is an illustrative representation of memory 412 of the schematic block diagram of FIG. 4. As illustrated, memory 412 which stores voice data is a circular buffer memory of the First-In-First-Out (FIFO) type. Each square in FIG. 5 represents a separate memory location or block which is separately addressable. Using circular buffering, voice data is saved in a consecutive fashion in memory 412 such that older voice data is written over by newer voice data in a loop-type fashion. Note that the size of memory 412 is sufficient to buffer an amount of voice data for at least one typical PTT voice communication.” Munje, [0055]. </p> <p data-bbox="598 1299 1974 1404"> “Each PTT voice communication within a PTT session may be uniquely identified by PTT sequence count 854 which is indicative of the order in which the PTT voice communication was submitted. To obtain PTT sequence count 854, the processor of the mobile station keeps track and increments a counter for each next </p>

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	<p>PTT voice communication received and stored for the PTT session. As shown, PTT voice record indicator 852 is the first ("[I]") communication of the PTT session. Data stamp 856 (4 Jun. 2004) and time stamp 858 (12:15:08) indicate the date and time, respectively, of the particular PTT voice communication. This information may be derived from existing applications at the mobile station or, alternatively, may be received during the PTT voice communication in a control message. Sender identification 860 uniquely identifies the sender or end user (mobile station) of the PTT voice communication. In this embodiment, sender identification 860 is a telephone number ("519-555-1212") of the sending mobile station. Sender identification 860 is received in a control message from the sending mobile station just before the PTT voice communication from the mobile station." Munje, [0062].</p> <div data-bbox="619 678 1039 1347"> <p style="text-align: center;">FIG. 6</p> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 612 --> 614{PTT Dekey Message?} 614 -- No --> 612 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632 </pre> </div>

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	<p>“FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066].</p> <p>“If the processor identifies that the recording feature is enabled as tested in step 610, however, conventional PTT voice communication processing and recording of the voice data in memory are performed. To begin, the processor performs a switching operation so that the upcoming voice data of the PTT voice communication will be stored in memory (step 618 of FIG. 6). Preferably, memory 412 of FIGS. 4-5 is utilized. The processor also identifies the sender identification (previously received) and stores it in memory in association with the upcoming PTT voice data (step 620 and FIG. 6). Referring to FIG. 5, a sender identification table 550 may be stored in memory for associating sender identifications (e.g. telephone numbers) with corresponding PTT voice communications. Sender identification table 550 in FIG. 5 is shown to have four sender identifications (which correspond to four recorded PTT voice communications) including a sender identification A 570 and a sender identification B 572. Next, a PTF sequence counter, a date stamp, and/or time stamp, as well as any other pertinent information, may also be stored in association with the voice data as well (step 622 of FIG. 6). This information may be received through the wireless transceiver from the sending mobile station or the wireless network, or obtained through applications running in the receiving mobile station.” Munje, [0070].</p> <p>“The processor then sets a start marker at the current input pointer address to mark the beginning of the PTT voice communication (step 624 of FIG. 6). See start marker 502 (“A”) of FIG. 5, for example. Next, the voice data for the PTT voice communication is received through the wireless transceiver (step 626 of FIG. 6). The voice data is processed so that audible voice signals are heard through the speaker of the mobile station. In particular, RF signals carrying the voice data may be processed through receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 of FIG. 4. Advantageously, the voice data of the PTT voice communication is also simultaneously saved in memory (step 628 of FIG. 6). Preferably, the circular buffer memory 412 of FIGS. 4-5 is utilized for the recording of the PTT voice data as</p>

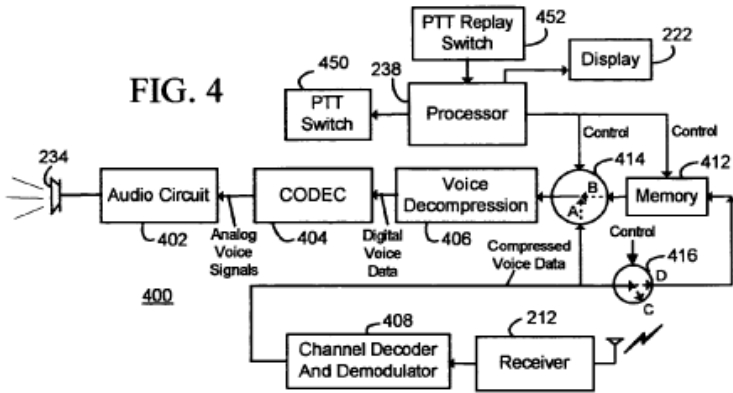
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>previously described. The first voice data item of the PTT voice communication is stored at the current location of the input pointer address, and subsequent voice data items are stored at the next available locations in sequence.” Munje, [0071].</p> <p>During the continuous receipt, processing, and storage of voice data of the PTT voice communication, the processor monitors whether a PTT dekey message has been received (step 630 of FIG. 6). If the PTT dekey message has not yet been received as tested in step 630, the voice data continues to be received, processed, and stored in the memory in a sequential fashion. If the PTT dekey is received as tested in step 630, however, then the processor sets an end marker at the current input pointer address (step 632 of FIG. 6). The end marker signifies the end of the PTT voice communication. See end marker 504 (“A”) of FIG. 5, for example. The processor then sets the switches so that the voice data storage is terminated (step 634 of FIG. 6). The voice and audio circuits are disabled by the processor (step 616 of FIG. 6). Munje, [0072].</p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, [0074].</p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is</p>

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	<p>operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0079].</p> <p>“A method of the present application includes the steps of receiving a PTT key message from a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message from the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. A computer program product of the present application includes a storage medium; computer instructions stored in the storage medium; where the computer instructions are executable by one or more processors for performing the method previously described.” Munje, [0081].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication</p>

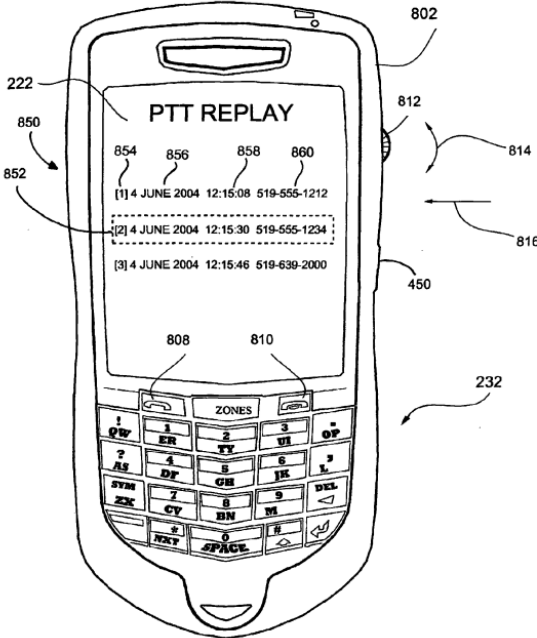
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>following the PTT key message; receive a PTT deque message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, claim 10.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT deque message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.,</i> Katis 1; Katis 2; Bluvband [0017]; Pacor [9:61]; Yannakopoulos [0024]; Freer p. 23; Eto [0050]; Minamide [0051]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Siemens Open Space; Android-recorder.</p>
<p>1[e] in response to the received message, send a notification to the software application based on the incoming message behavior policy;</p>	<p>Munje discloses an embeddable communications software module that is arranged to, in response to the received message, send a notification to the software application based on the incoming message behavior policy. <i>See, e.g.:</i></p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data.” Munje, at [007].</p> <p>“The processor is operative to cause the voice data of the PTT voice communication to be recorded in the</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, at [007].</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and deque messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p> <div data-bbox="615 792 1150 1170"> </div> <p>“Mobile station 202 will normally incorporate a communication subsystem 211, which includes a receiver 212, a transmitter 214, and associated components, such as one or more (preferably embedded or internal) antenna elements 216 and 218, local oscillators (LOs) 213, and a processing module such as a digital signal processor (DSP) 220. Communication subsystem 211 is analogous to RF transceiver circuitry 108 and antenna 110 shown in FIG. 1. As will be apparent to those skilled in field of communications, particular design of communication subsystem 211 depends on the communication network in which mobile station 202 is intended to operate.”</p>

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	<p>Munje, [0033].</p> <p>“Mobile station 202 may send and receive communication signals over the network after required network registration or activation procedures have been completed.” Munje, at [0034].</p> <p>“Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.” Munje, [0036].</p> <p>“Microprocessor 238, in addition to its operating system functions, preferably enables execution of software applications on mobile station 202.” Munje, at [0037].</p> <p>“PoC server 304 includes functionality to perform the PoC service. PoC Server 304 typically performs functions such as: (1) end-point for SIP signaling; (2) end-point for real-time transport protocol (RTP) and RTP Control Protocol (RTCP) signaling; (3) SIP session handling; (4) policy control for access to groups; (5) group session handling; (6) access control; (7) do-not-disturb functionality; (8) floor control functionality (floor control is a control mechanism that arbitrates requests, from the UEs, for the right to speak); (9) talker identification; (10) participant information; (10) quality feedback; (11) charging reports; and (12) media distribution.” Munje, at [0046].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="737 440 835 472">FIG. 4</p>  <p data-bbox="596 818 2026 1068">“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p data-bbox="596 1110 2026 1393">“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory 412.” Munje, at [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, at [0054].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	 <p data-bbox="842 964 926 992">FIG. 8</p> <p data-bbox="598 1089 2024 1382">“Display 222 is used to visually display indicators for PTT voice communications that were previously received by and recorded by the mobile station. In this example, a list 850 of three PTT voice record indicators are displayed for review by the end user. However, any suitable number of PTT voice record indicators may be displayed. Each indicator in list 850 comprises a line of text. One example is a PTT voice record indicator 852 which is representative of the other PTT voice record indicators within list 850. As shown, PTT voice record indicator 852 includes a PTT sequence count 854, a date stamp 856, a time stamp 858, and a sender identification 860. Note that this information is merely an illustrative example of what may be provided in visual display 222 and the invention is not limited to such information.” Munje, at [0061].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="625 284 1039 950" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 604 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632 </pre> </div> <p data-bbox="877 462 940 487">FIG. 6</p> <p data-bbox="598 1015 2005 1266"> “FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066]. </p> <p data-bbox="598 1339 1942 1404"> “Beginning at a start block 602 of FIG. 6, a processor of the mobile station identifies whether a PTT key message has been received through the wireless transceiver (step 604 of FIG. 6).” Munje, at [0067]. </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved “bit flag” in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068].</p> <p>“During the receipt and processing of this voice data, the processor monitors whether a PTT dekey message is received (step 614 of FIG. 6). A PTT dekey message corresponds to a PTT release of the sending mobile station and signifies an end of the PTT voice communication. If the PTT dekey message has not yet been received at step 614, the voice data continues to be received and processed by the mobile station. If the PTT dekey is received at step 614, then the processor causes the voice and audio circuits to be disabled (step 616 of FIG. 6) and ceases any further voice processing. The method repeats again starting at step 604.” Munje, [0069].</p> <p>“If the processor identifies that the recording feature is enabled as tested in step 610, however, conventional PTT voice communication processing and recording of the voice data in memory are performed. To begin, the processor performs a switching operation so that the upcoming voice data of the PTT voice communication will be stored in memory (step 618 of FIG. 6). Preferably, memory 412 of FIGS. 4-5 is utilized. The processor also identifies the sender identification (previously received) and stores it in memory in association with the upcoming PTT voice data (step 620 and FIG. 6). Referring to FIG. 5, a sender identification table 550 may be stored in memory for associating sender identifications (e.g. telephone numbers) with corresponding PTT voice communications. Sender identification table 550 in FIG. 5 is shown to have four sender identifications (which correspond to four recorded PTT voice communications) including a sender identification A 570 and a sender identification B 572. Next, a PTF sequence counter, a date stamp, and/or time stamp, as well as any other pertinent information, may also be stored in association with the voice data as well (step 622 of FIG. 6). This</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>information may be received through the wireless transceiver from the sending mobile station or the wireless network, or obtained through applications running in the receiving mobile station.” Munje, [0070].</p> <p>During the continuous receipt, processing, and storage of voice data of the PTT voice communication, the processor monitors whether a PTT dekey message has been received (step 630 of FIG. 6). If the PTT dekey message has not yet been received as tested in step 630, the voice data continues to be received, processed, and stored in the memory in a sequential fashion. If the PTT dekey is received as tested in step 630, however, then the processor sets an end marker at the current input pointer address (step 632 of FIG. 6). The end marker signifies the end of the PTT voice communication. See end marker 504 (“A”) of FIG. 5, for example. The processor then sets the switches so that the voice data storage is terminated (step 634 of FIG. 6). The voice and audio circuits are disabled by the processor (step 616 of FIG. 6). Munje, [0072].</p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0079].</p> <p>“A method of the present application includes the steps of receiving a PTT key message from a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message from the mobile</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. A computer program product of the present application includes a storage medium; computer instructions stored in the storage medium; where the computer instructions are executable by one or more processors for performing the method previously described.” Munje, [0081].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0018]; Yannakopoulos Fig. 6; Uehara [0027]; Kono [0024]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Siemens Open Space; Android-recorder.</p>
<p>1[f] selectively render the incoming message in a near real time mode, wherein the near real time mode involves progressively rendering the incoming message as it is received;</p>	<p>Munje discloses an embeddable communications software module that is arranged to selectively render the incoming message in a near real time mode, wherein the near real time mode involves progressively rendering the incoming message as it is received. <i>See, e.g.</i>:</p> <p>“PTT voice communications are different from traditional cellular telephony communications in that the voice communications are generally immediate and unannounced. An end user of the mobile station may be busy or caught "off-guard" and not listening to the initial communication. Thus, the end user may not hear at least the initial PTT voice communication. This is inconvenient and often wasteful of bandwidth resources, as the talk groups may have to respond to indicate that they did not hear the initial PT communication.” Munje, at [0005]</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="609 303 1337 690"> </div> <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p>“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>412.” Munje, [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, [0054].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 300 1039 966" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632[Set End Marker At Current Input Pointer Address] 632 --> 634[Set Switch To Terminate Voice Storage] 634 --> 616[Disable Voice And Audio Circuits] 616 --> 604 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 612 614 -- Yes --> 616 </pre> <p>FIG. 6</p> </div> <p data-bbox="598 1031 2026 1388"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved “bit flag” in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068]. </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“During the receipt and processing of this voice data, the processor monitors whether a PTT dekey message is received (step 614 of FIG. 6). A PTT dekey message corresponds to a PTT release of the sending mobile station and signifies an end of the PTT voice communication. If the PTT dekey message has not yet been received at step 614, the voice data continues to be received and processed by the mobile station. If the PTT dekey is received at step 614, then the processor causes the voice and audio circuits to be disabled (step 616 of FIG. 6) and ceases any further voice processing. The method repeats again starting at step 604.” Munje, [0069].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Nguyen [10:41]; Bluvband [0019]; Pacor [15:52]; Yannakopoulos [0029]; Freer p. 21; Uehara [0052]; Kono [0023]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>
<p>1[g] selectively render the incoming message in a time-shifted mode, wherein the time shifted mode involves rendering the incoming message after the incoming message has been received and stored; and</p>	<p>Munje discloses an embeddable communications software module that is arranged to selectively render the incoming message in a time-shifted mode, wherein the time shifted mode involves rendering the incoming message after the incoming message has been received and stored. <i>See, e.g.</i>:</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>and deque messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p> <div data-bbox="611 427 1339 816" data-label="Diagram"> </div> <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p>“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory 412.” Munje, [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, [0054].</p>

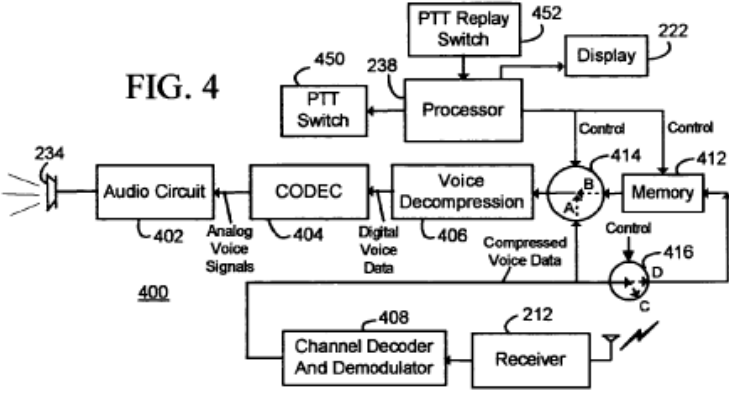
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>FIG. 7</p> <pre> graph TD 702([Start]) --> 704[Display List Of Stored PTT Voice Indicators With Identification] 704 --> 706{Exit ?} 706 -- Yes --> 750[Other Processing] 706 -- No --> 708{PTT Replay?} 708 -- Yes --> 710[Set Switch To Play PTT Voice Communications From Memory] 710 --> 712[Identify Selected PTT Voice Indicator And Set Output Pointer Accordingly] 712 --> 714[Enable Voice And Audio Circuits For Playing Selected PTT Voice] 714 --> 716[Play Audio Based On (Next) Voice Data] 716 --> 718{Output Pointer = End Marker?} 718 -- Yes --> 720[Disable Voice And Audio Circuits] 720 --> 722[Set Switch To Terminate Retrieval] 722 --> 704 718 -- No --> 716 </pre>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“FIG. 7 is a flowchart for describing a method of providing replay of previously recorded PTT voice communications in the mobile station. The recorded PTT voice communications may be those stored in accordance with the previously described flowchart of FIG. 6. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile-station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 7 will be described in combination with the components of FIGS. 4-5 and 8.” Munje, [0075].</p> <p>“Beginning at a start block 702 of FIG. 7, the processor of the mobile station causes a list of stored PTT voice indicators to be displayed in its visual display (step 704 of FIG. 7). Preferably, each stored PTT voice communication is associated with a sender identification and other information which is displayed along with the stored PTT voice indicator. Most preferably, the information and format shown and described in relation to FIG. 8 is utilized. Back to FIG. 7, the processor then monitors user input signals at the user interface. The processor identifies whether an “exit” selection has been detected at the user interface (step 706 of FIG. 7). If so, the processor causes other processing to occur (step 750 of FIG. 7) which is unrelated to the present application. The processor also identifies whether a PTT replay selection has been selected at the user interface (step 708 of FIG. 7). If not, the processor continues monitoring for user inputs at the user interface. Preferably, the selection at the user interface utilizes the techniques previously described in relation to FIG. 8.” Munje, [0076].</p> <p>“If the processor identifies that a PTT replay has been selected at step 708, then the processor causes a switching operation to be performed so that a PTT voice communication stored in the memory can be played or replayed (step 710 of FIG. 7).” Munje, at [0077].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and deque messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, at [0078].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0079].</p> <p>“A wireless communication system of the present application includes a wireless communication network; a Push-to-talk (PTT) server coupled in the wireless network; and one or more mobile stations which operate in the wireless communication network. Each mobile station includes a wireless transceiver which operates with the wireless communication network; one or more processors; memory coupled to the one or more processors; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the PTT voice communication. The one or more processors are operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, at [0080].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station,</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“The method of claim 1, further comprising: in response to detecting a user actuation of a switch at a user interface of the mobile station, causing the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from a speaker of the mobile station.” Munje, claim 2.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>“The mobile station of claim 10, wherein the one or more processors are further operative to: in response to detecting a user actuation of the PTT replay switch, cause the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, claim 11.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT deque message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, claim 19.</p> <p>“The computer program product of claim 19, wherein the computer instructions are further executable for: in response to detecting a user actuation of a switch, causing the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output.” Munje, claim 20.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Nguyen [7:47]; Bluvband [0024]; Pacor [10:29]; Yannakopoulos [0027]; Freer p. 24; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>
<p>1[h] determine whether to render the incoming message in the near real time mode or the time-shifted mode based at least in part on the incoming message behavior policy,</p>	<p>Munje discloses an embeddable communications software module that is arranged to determine whether to render the incoming message in the near real time mode or the time-shifted mode based at least in part on the incoming message behavior policy. <i>See, e.g.</i>:</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="737 375 831 407">FIG. 4</p>  <p data-bbox="598 751 2026 1003">“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p data-bbox="598 1044 2026 1401">“Memory 412 is used to store compressed voice data of received PTT voice communications, as will be described further herein. A first input of switch 414 is coupled to the output of channel coder and demodulator 408, a second input of switch 414 is coupled to an output of memory 412, and an output of switch 414 is coupled to the input of voice decompressor 406. When a switch position “A” is set for switch 414, compressed voice data from channel decoder and demodulator 408 is routed to the input of voice decompressor 406. When a switch position “B” is set for switch 414, compressed voice data from memory 412 is routed to the input of voice decompressor 406. For recording received PTT voice communications, an input of memory 412 is coupled to the output of channel decoder and demodulator 418 through switch 416. Switch 416 may be set to a switch position “D” to couple the output of channel decoder and demodulator 418 to the input of memory 412, or to a switch position “C” which opens the switch so that no compressed voice data is received by memory</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>412.” Munje, [0053].</p> <p>“Processor 238 controls switches 414 and 416 to be in one of three different switch configurations depending on the desired operation. In a first configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position C for the conventional listening of voice without recording. In a second configuration, processor 238 controls switch 414 to be in switch position A and switch 416 to be in switch position D for the conventional listening of voice with simultaneous recording in memory 412. In a third configuration, processor 238 controls switch 414 to be in switch position Band switch 416 to be in switch position C for the listening of previously recorded voice from memory 412. This listening may be prompted by an actuation of PTT replay switch 452, which may be a normal push-button switch or a switch activated by an insertion of a headset into the mobile station, for example.” Munje, [0054].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 284 1039 950" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 632[Set End Marker At Current Input Pointer Address] 632 --> 634[Set Switch To Terminate Voice Storage] 634 --> 616[Disable Voice And Audio Circuits] 616 --> 604 630 -- Yes --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 612 614 -- Yes --> 616 </pre> <p>The flowchart, labeled FIG. 6, illustrates a process for handling PTT (Push-To-Talk) voice communications. It begins at a 'Start' node (602) and proceeds to a decision diamond (604) asking 'PTT Key Message?'. If the answer is 'No', the process loops back to the start of the decision. If 'Yes', it moves to 'Receive Sender Identification' (606), then 'Enable Voice And Audio Circuits' (608). Another decision diamond (610) asks 'Recording Enabled?'. If 'Yes', it sets a switch to store PTT voice data in memory (618), identifies and stores sender identification (620), stores sequence counters, date stamps, and time stamps (622), sets a start marker at the current input pointer address (624), receives PTT voice data (626), and stores it in memory (628). It then checks for a 'PTT Dekey Message?' (630). If 'No', it sets an end marker (632), sets a switch to terminate voice storage (634), disables voice and audio circuits (616), and loops back to the initial PTT key message decision (604). If 'Yes' at 630, it proceeds to receive PTT voice data (612) and checks for a 'PTT Dekey Message?' (614). If 'No' at 614, it loops back to receive PTT voice data (612). If 'Yes' at 614, it disables voice and audio circuits (616) and loops back to the initial PTT key message decision (604).</p> </div> <p data-bbox="590 1063 2026 1424"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved "bit flag" in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munjie, at [0068]. </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“If the processor identifies that the recording feature is enabled as tested in step 610, however, conventional PTT voice communication processing and recording of the voice data in memory are performed. To begin, the processor performs a switching operation so that the upcoming voice data of the PTT voice communication will be stored in memory (step 618 of FIG. 6). Preferably, memory 412 of FIGS. 4-5 is utilized. The processor also identifies the sender identification (previously received) and stores it in memory in association with the upcoming PTT voice data (step 620 and FIG. 6). Referring to FIG. 5, a sender identification table 550 may be stored in memory for associating sender identifications (e.g. telephone numbers) with corresponding PTT voice communications. Sender identification table 550 in FIG. 5 is shown to have four sender identifications (which correspond to four recorded PTT voice communications) including a sender identification A 570 and a sender identification B 572. Next, a PTF sequence counter, a date stamp, and/or time stamp, as well as any other pertinent information, may also be stored in association with the voice data as well (step 622 of FIG. 6). This information may be received through the wireless transceiver from the sending mobile station or the wireless network, or obtained through applications running in the receiving mobile station.” Munje, [0070].</p> <p>“The processor then sets a start marker at the current input pointer address to mark the beginning of the PTT voice communication (step 624 of FIG. 6). See start marker 502 (“A”) of FIG. 5, for example. Next, the voice data for the PTT voice communication is received through the wireless transceiver (step 626 of FIG. 6). The voice data is processed so that audible voice signals are heard through the speaker of the mobile station. In particular, RF signals carrying the voice data may be processed through receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 of FIG. 4. Advantageously, the voice data of the PTT voice communication is also simultaneously saved in memory (step 628 of FIG. 6). Preferably, the circular buffer memory 412 of FIGS. 4-5 is utilized for the recording of the PTT voice data as previously described. The first voice data item of the PTT voice communication is stored at the current location of the input pointer address, and subsequent voice data items are stored at the next available locations in sequence.” Munje, [0071].</p> <p>During the continuous receipt, processing, and storage of voice data of the PTT voice communication, the processor monitors whether a PTT deque message has been received (step 630 of FIG. 6). If the PTT deque message has not yet been received as tested in step 630, the voice data continues to be received, processed, and stored in the memory in a sequential fashion. If the PTT deque is received as tested in step 630, however, then</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>the processor sets an end marker at the current input pointer address (step 632 of FIG. 6). The end marker signifies the end of the PTT voice communication. See end marker 504 (“A”) of FIG. 5, for example. The processor then sets the switches so that the voice data storage is terminated (step 634 of FIG. 6). The voice and audio circuits are disabled by the processor (step 616 of FIG. 6). Munje, [0072].</p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, [0074].</p>

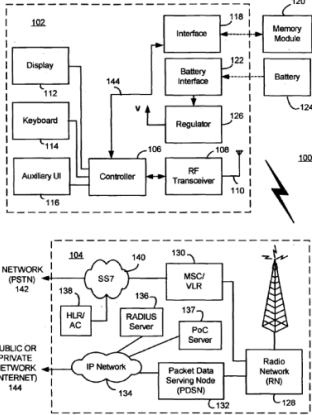
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>FIG. 7</p> <pre> graph TD 702([Start]) --> 704[Display List Of Stored PTT Voice Indicators With Identification] 704 --> 706{Exit?} 706 -- Yes --> 750[Other Processing] 706 -- No --> 708{PTT Replay?} 708 -- Yes --> 710[Set Switch To Play PTT Voice Communications From Memory] 710 --> 712[Identify Selected PTT Voice Indicator And Set Output Pointer Accordingly] 712 --> 714[Enable Voice And Audio Circuits For Playing Selected PTT Voice] 714 --> 716[Play Audio Based On (Next) Voice Data] 716 --> 718{Output Pointer = End Marker?} 718 -- Yes --> 720[Disable Voice And Audio Circuits] 720 --> 722[Set Switch To Terminate Retrieval] 722 --> 704 718 -- No --> 716 </pre>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“FIG. 7 is a flowchart for describing a method of providing replay of previously recorded PTT voice communications in the mobile station. The recorded PTT voice communications may be those stored in accordance with the previously described flowchart of FIG. 6. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile-station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 7 will be described in combination with the components of FIGS. 4-5 and 8.” Munje, [0075].</p> <p>“Beginning at a start block 702 of FIG. 7, the processor of the mobile station causes a list of stored PTT voice indicators to be displayed in its visual display (step 704 of FIG. 7). Preferably, each stored PTT voice communication is associated with a sender identification and other information which is displayed along with the stored PTT voice indicator. Most preferably, the information and format shown and described in relation to FIG. 8 is utilized. Back to FIG. 7, the processor then monitors user input signals at the user interface. The processor identifies whether an “exit” selection has been detected at the user interface (step 706 of FIG. 7). If so, the processor causes other processing to occur (step 750 of FIG. 7) which is unrelated to the present application. The processor also identifies whether a PTT replay selection has been selected at the user interface (step 708 of FIG. 7). If not, the processor continues monitoring for user inputs at the user interface. Preferably, the selection at the user interface utilizes the techniques previously described in relation to FIG. 8.” Munje, [0076].</p> <p>“If the processor identifies that a PTT replay has been selected at step 708, then the processor causes a switching operation to be performed so that a PTT voice communication stored in the memory can be played or replayed (step 710 of FIG. 7).” Munje, at [0077].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and dekey messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, at [0078].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0079].</p> <p>“A method of the present application includes the steps of receiving a PTT key message from a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message from the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. A computer program product of the present application includes a storage medium; computer instructions stored in the storage medium; where the computer instructions are executable by one or more processors for performing the method previously described.” Munje, [0081].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network;</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“The method of claim 1, further comprising: in response to detecting a user actuation of a switch at a user interface of the mobile station, causing the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from a speaker of the mobile station.” Munje, claim 2.</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>“The mobile station of claim 10, wherein the one or more processors are further operative to: in response to detecting a user actuation of the PTT replay switch, cause the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, claim 11.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“The computer program product of claim 19, wherein the computer instructions are further executable for: in response to detecting a user actuation of a switch, causing the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output.” Munje, claim 20.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Nguyen [16:27]; Pacor [16:1]; Yannakopoulos Fig. 6; Uehara [0069]; Kono [0024]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>
<p>1[i] wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.</p>	<p>Munje discloses an embeddable communications software module wherein the software application is separate from the communication system that is accessed through the embeddable communications software module. <i>See, e.g.:</i></p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, at [007].</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data.” Munje, at [007].</p> <p>“FIG. 1 is a block diagram which illustrates pertinent components of a mobile station and a wireless communication network;” Munje, at [0010].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="659 347 705 363">FIG. 1</p>  <p data-bbox="598 883 2028 1062">“FIG. 1 is a block diagram of a communication system 100 which includes a mobile station 102 which communicates through a wireless communication network 104. Mobile station 102 preferably includes a visual display 112, a keyboard 114, and perhaps one or more auxiliary user interfaces (UI) 116, each of which is coupled to a controller 106. Controller 106 is also coupled to radio frequency (RF) transceiver circuitry 108 and an antenna 110.” Munje, [0021].</p> <p data-bbox="598 1105 2028 1321">“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p> <p data-bbox="598 1360 2028 1430">“Mobile station 102 communicates in and through wireless communication network 104, which is preferably a cellular telecommunications network.” Munje, at [0026].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="611 358 1150 732" data-label="Diagram"> </div> <p>“FIG. 2 is a detailed block diagram of a preferred mobile station 202. Mobile station 202 is preferably a two-way communication device having at least voice and advanced data communication capabilities, including the capability to communicate with other computer systems. Depending on the functionality provided by mobile station 202, it may be referred to as a data messaging device, a two-way pager, a cellular telephone with data messaging capabilities, a wireless Internet appliance, or a data communication device (with or without telephony capabilities). Mobile station 202 may communicate with any one of a plurality of base station transceiver systems 200 within its geographic coverage area. Mobile station 202 selects or helps select which one of base station transceiver systems 200 it will communicate with, as will be described in more detail later in relation to FIGS. 3 and 4.” Munje, [0032].</p> <p>“Mobile station 202 will normally incorporate a communication subsystem 211, which includes a receiver 212, a transmitter 214, and associated components, such as one or more (preferably embedded or internal) antenna elements 216 and 218, local oscillators (LOs) 213, and a processing module such as a digital signal processor (DSP) 220. Communication subsystem 211 is analogous to RF transceiver circuitry 108 and antenna 110 shown in FIG. 1. As will be apparent to those skilled in field of communications, particular design of communication subsystem 211 depends on the communication network in which mobile station 202 is intended to operate.”</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>Munje, [0033].</p> <p>“Mobile station 202 may send and receive communication signals over the network after required network registration or activation procedures have been completed.” Munje, at [0034].</p> <p>“Network access is associated with a subscriber or user of mobile station 202, and therefore mobile station 202 requires a memory module 262, such as a Subscriber Identity Module or "SIM" card or a Removable User Identity Module (R-UM), to be inserted in or connected to an interface 264 of mobile station 202 in order to operate in the network. Alternatively, memory module 262 may be a non-volatile memory which is programmed with configuration data by a service provider so that mobile station 20 may operate in the network. Since mobile station 202 is a mobile battery-powered device, it also includes a battery interface 254 for receiving one or more rechargeable batteries 256. Such a battery 256 provides electrical power to most if not all electrical circuitry in mobile station 202, and battery interface 254 provides for a mechanical and electrical connection for it. The battery interface 254 is coupled to a regulator (not shown in FIG. 2) which provides power V+ to all of the circuitry.” Munje, [0035].</p> <p>“Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof,</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>may be temporarily loaded into a volatile store such as RAM 226." Munje, [0036].</p> <div data-bbox="611 407 1339 797" data-label="Diagram"> </div> <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p>“The plurality of keys also include a PTT voice communication switch 450. In this embodiment, PTT switch 450 is located on a right hand side of housing 802. When PTT switch 450 is depressed by an end user, the mobile station initiates a PTT voice communication through the wireless network. After PTT switch 450 depression, audible voice signals are received at the microphone of the mobile station and voice signals are transmitted through the wireless network and heard at certain other mobile stations. Unlike traditional telephone calls, PTT voice communications are relatively immediate and do not require the entry or selection of the recipient's telephone number.” Munje, at [0060].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 373 1039 1039" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- Yes --> 632[Set End Marker At Current Input Pointer Address] 632 --> 634[Set Switch To Terminate Voice Storage] 634 --> 616[Disable Voice And Audio Circuits] 616 --> 604 630 -- No --> 626 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- Yes --> 616 614 -- No --> 612 </pre> </div> <p data-bbox="877 552 940 576">FIG. 6</p> <p data-bbox="598 1153 2026 1404"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved "bit flag" in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munjie, at [0068].</p> <p>“A wireless communication system of the present application includes a wireless communication network; a Push-to-talk (PTT) server coupled in the wireless network; and one or more mobile stations which operate in the wireless communication network. Each mobile station includes a wireless transceiver which operates with the wireless communication network; one or more processors; memory coupled to the one or more processors; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the PTT voice communication. The one or more processors are operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, at [0080].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>
<p>5. An embeddable communications software module as recited in claim 1 wherein the embeddable communications software module is</p>	<p>To the extent the preamble is limiting, Munje discloses an embeddable communications software module as recited in claim 1. <i>See</i> citations for claim 1[a]-[i], 5[a]-[d].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
further arranged to:	
<p>5[a] receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;</p>	<p>Munje discloses an embeddable communications software module as recited in claim 1 that is further arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. <i>See, e.g.:</i></p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0007]</p> <p>“End users use GLMS 308 to manage groups, contact lists, and access lists. A contact list is a type of address book that may be used by end users to establish an instant talk session with other PoC users or PoC Groups. An end user may have one or several contact lists including identities of other PoC users or PoC groups. Contact list management includes operations to allow UE 302 to store and retrieve the contact lists located in GLMS 308. End users can define PoC groups. An end user may select one group from the list to initiate an instant group talk session or a chat group talk session, depending on the type of group. An access list is used by the end user as a means of controlling who is allowed to initiate instant talk sessions to the end user. An access list contains end user defined identities of other end users or groups. The end user may have one blocked identities list and one granted identities list.” Munje, at [0045]</p> <p>End users may initiate PoC talk sessions. An INVITE request on the Is interface contains an "AcceptContact"</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>header with a media feature tag indicating the PoC service. IMS core 312 is able to identify the request as a PoC communication by inspecting the Accept-Contact header. A Request-URI of the INVITE contains either the pre-configured ad-hoc identity (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group talk). Early session establishment is used for having a session available for quick connection establishment using "REFER". The early session establishment's INVITE does not have any referred party field and can be differentiated from this against other INVITEs. A transient group identity is generated by PoC server 304 and distributed to UE 302 in the "Contact" header. From an initiating UE 302, the public user identity of the inviting user is included in the "From" header. On the signaling towards the invited user, the "From" header includes either the public user identity (instant personal talk, ad-hoc instant group) or the group identity (instant group talk or being added to a chat group)." Munje, at [0049].</p> <p>"The plurality of keys also include a PTT voice communication switch 450. In this embodiment, PTT switch 450 is located on a right hand side of housing 802. When PTT switch 450 is depressed by an end user, the mobile station initiates a PTT voice communication through the wireless network. After PTT switch 450 depression, audible voice signals are received at the microphone of the mobile station and voice signals are transmitted through the wireless network and heard at certain other mobile stations. Unlike traditional telephone calls, PTT voice communications are relatively immediate and do not require the entry or selection of the recipient's telephone number." Munje, at [0060].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0026]; Harwell [9:65]; Cropper [31:10]; Uehara [0098]; Eto [0065]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>Moreover, if a combination were required, Jones renders this claim limitation obvious in view of numerous prior art references that disclose, receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. Long before the alleged invention of the '028 patent, it was well known that systems could be arranged to send such notifications.</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p><i>See, e.g.</i>, citations contained in 028 chart for Bulhuis reference at claim 5[a]; Manber reference at claim 5[a]; Munje reference at claim 5[a]; Othmer reference at claim 5[a]; Pelttari reference at claim 5[a]; Milgramm reference at claim 5[a]; and Rand reference at claim 5[a].</p> <p>A person of ordinary skill in the art would understand that a communications software module can be arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. For example, the '028 patent itself references prior art to the patent that discloses a communications software module arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient, such as Katis 1 at 28-31, 55-56.</p>
<p>5[b] record outgoing media created by a user;</p>	<p>Munje discloses recording outgoing media created by a user. <i>See, e.g.</i>,</p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, at [0074].</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT deque message following the voice data; the one or more</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message.” Munje, claim 10.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0014]; Harwell [9:65]; Cropper [30:3]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>A person of ordinary skill in the art would understand that a communications software module can be arranged to record outgoing media created by a user. For example, the ‘028 patent itself references prior art to the patent that disclosed a communications software module arranged to record outgoing media created by a user, such as Katis 1 at 38-40.</p>
<p>5[c] progressively transmit the outgoing media to remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and</p>	<p>Munje discloses progressively transmit the outgoing media to remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. <i>See, e.g.</i>:</p> <p>End users may initiate PoC talk sessions. An INVITE request on the Is interface contains an "AcceptContact" header with a media feature tag indicating the PoC service. IMS core 312 is able to identify the request as a PoC communication by inspecting the Accept-Contact header. A Request-URI of the INVITE contains either the pre-configured ad-hoc identity (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group talk). Early session establishment is used for having a session available for quick connection establishment using "REFER". The early session establishment's INVITE does not have any referred party field and can be differentiated from this against other INVITES. A transient group identity is generated by PoC server 304 and distributed to UE 302 in the "Contact" header. From an initiating UE 302, the public user identity of the inviting user is included in the "From" header. On the signaling towards the invited user, the "From" header includes either the public user identity (instant personal talk, ad-hoc instant group) or the group identity (instant group talk or being added to a chat group).” Munje, at [0049].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, at [0074].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0026]; Harwell [9:65]; Cropper [29:23]; Kono [0016]; Minamide [0040]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>Moreover, if a combination were required, Jones renders this claim limitation obvious in view of numerous prior art references that disclose, receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. Long before the alleged invention of the '028 patent, it was well known that systems could be arranged to send such notifications.</p> <p><i>See, e.g.</i>, citations contained in 028 chart for Bulthuis reference at claim 5[c]; Manber reference at claim 5[c]; Munje reference at claim 5[c]; Othmer reference at claim 5[c]; Peltari reference at claim 5[c]; Milgramm reference at claim 5[c]; and Rand reference at claim 5[c].</p> <p>A person of ordinary skill in the art would understand that a communications module can be arranged to progressively transmit the outgoing media to remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. For example, the '028 patent itself references prior art to the patent that</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	utilized a communications module that can, in response to the received message, send a notification to a software application based on the incoming message behavior policy, such as Katis 1 at 0028-0031, 0055-0056.
<p>5[d] progressively store the outgoing media while the outgoing media is being created and transmitted.</p>	<p>Munje discloses progressively store the outgoing media while the outgoing media is being created and transmitted. <i>See, e.g.:</i></p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, [0074].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.,</i> Katis 1; Katis 2; Bluvband [0017]; Harwell [10:6]; Cropper [29:19]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>A person of ordinary skill in the art would understand that a communications module can be arranged to progressively store the outgoing media while the outgoing media is being created and transmitted. For example, the ‘028 patent itself references prior art to the patent that utilized a communications module that can be arranged to progressively store the outgoing media while the outgoing media is being created and transmitted, such as Katis 1 at 28-31, 38-40, 52-56.</p>
<p>12. An embeddable communications</p>	<p>To the extent the preamble is limiting, Munje discloses an embeddable communications software module that allows a software application to access a communications system providing both time delayed and near real</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
<p>software module that allows a software application to access a communications system providing both time delayed and near real time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium wherein the embeddable communications software module is arranged to:</p>	<p>time communication, the embeddable communications software module stored in a non-transitory tangible computer readable storage medium. <i>See</i> citations for claim 1[a]-[i] 5[a]-[d].</p>
<p>12[a] provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication module and the software application communicate through the API;</p>	<p>Munje discloses an embeddable communications software module as described in claim 12 that is arranged to provide an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable communication software module and the software application communicating through the API. <i>See, e.g.:</i></p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, at [007].</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data.” Munje, at [007].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, at [007].</p> <p>“Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [007].</p> <p>“Advantageously, PTT voice communications that are missed (e.g. especially the first PTT voice communication of a PTT session) may be replayed by an end user. The recording of PTT voice is performed automatically by the mobile station without the need for effort or involvement by the end user. Using PTT key and dekey messages for recording initiation and recording termination, respectively, conserves memory space as compared to continuous recording over a PTT session.” Munje, [0008].</p> <p>“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="611 305 1150 678" data-label="Diagram"> </div> <p data-bbox="596 776 2018 1328"> “Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.” Munje, [0036]. </p> <p data-bbox="596 1393 1976 1432"> “Microprocessor 238, in addition to its operating system functions, preferably enables execution of software </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>applications on mobile station 202.” Munje, at [0037].</p> <div data-bbox="611 407 1339 797" data-label="Diagram"> </div> <p>“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="619 284 1039 950" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 604 614 -- Yes --> 616[Disable Voice And Audio Circuits] 616 --> 634[Set Switch To Terminate Voice Storage] 634 --> 632[Set End Marker At Current Input Pointer Address] 632 --> 604 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632 </pre> </div> <p data-bbox="877 462 945 487">FIG. 6</p> <p data-bbox="598 998 2005 1250"> “FIG. 6 is a flowchart for describing a method of automatically recording PTT voice communications for replay in a mobile station. This method is performed by a mobile station within the context described above in relation to FIGS. 1-5 and 8-10. In addition, the method may be embodied in a computer program product which includes a storage medium (e.g. computer disk or memory) and computer instructions stored in the storage medium. These computer instructions are performed by one or more processors of the mobile station (e.g. microprocessor, DSP, etc.). In the description that follows, the flowchart of FIG. 6 will be described in combination with the components of FIGS. 4-5.” Munje, [0066]. </p> <p data-bbox="598 1291 2005 1388"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>as a saved “bit flag” in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munje, [0068].</p> <p>“A method for use in recording and replaying Push-ToTalk (PTT) voice communications in a mobile station, comprising: receiving a PTT key message at a mobile station through a wireless communication network; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory of the mobile station based on receiving the PTT key message; receiving a PTT dekey message at the mobile station through the wireless communication network; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 1.</p> <p>“A computer program product, comprising: a storage medium; computer instructions stored in the storage medium; and the computer instructions being executable by one or more processors for: receiving a PTT key message; receiving voice data of a PTT voice communication following the PTT key message; causing the voice data of the PTT voice communication to be recorded in memory based on receiving the PTT key message; receiving a PTT dekey message following the voice data; and causing the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 19.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Felt; Freer p. 31; Minamide [0055]; Belanger; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space</p> <p>Moreover, if a combination were required, Munje renders this claim limitation obvious in view of numerous prior art references that disclose an application programming interface (API) that allows the embeddable communications software module to receive API inputs from the software application, the embeddable</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>communication software module and the software application communicating through the API. Long before the alleged invention of the '028 patent, it was well known that an application programming interface could allow a software module to receive API inputs from the software application, with the software module and the software application communicating through the API.</p> <p>The Pelttari reference, for instance, discloses a communications software module and a software application communicating through an API. The Pelttari reference states, for example, that “[a]s an example, the category of the audio content is identified from the identification parameters using an API.” 028 chart for Pelttari at 0045. <i>See</i> 028 chart for Pelttari at Figs. 2-5, 45-46, 49, 61, 62, 65, 67, 75-77, 81, 102-3, 106-9, 122.</p> <p>The Rand reference also discloses a communications software module and a software application communicating through an API. The Rand reference states, for example, that “FIG. 9a illustrates an embodiment of the invention including a possible relationship between a device, operating system, and a software application serving as the software 40 component of the invention (“The Application”). The Application could integrate with third party VoIP and Audio Apps through an Application Programming Interface (API), Software Development Kit (SDK), or other means.” Rand reference 21:38-44. <i>See also</i>, e.g., 028 chart for Rand reference at 16:17-28; 21:38-46; Fig. 9A.</p> <p>The Rensin reference also discloses a communications software module and a software application communicating through an API. The Rensin reference states, for example, that “[a]ccording to one embodiment of the present invention, the server software 14 includes its own application programming interface to allow for integration with a variety of third-party products and systems, such as existing third-party imagery databases, video surveillance tools and infrastructures, third-party alerting and messaging systems, and artificial intelligence solutions, such as facial and object recognition applications.” 028 chart for Rensin at 0383. <i>See also</i>, e.g., 028 chart for Rensin reference at [0022], [0032-35], [0086], [0110], [0164], [0383], Claims 1-2, 4-10.</p> <p>The Milgramm reference also discloses a communications software module and a software application communicating through an API. The Milgramm reference states, for example, that “For example, when signing</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>up for the live stream detection and notification service provided by the centralized server 101, the user provides user registration information to the centralized server 101. Such user registration information can include basic information about the user such as name, user ID, e-mail address and phone number. The user registration information can later be used to determine the method of notifying the user (e.g., via e-mail or via SMS sent to the phone number).” Milgramm reference at 0028. <i>See also, e.g.</i>, 028 chart for Milgramm reference at [0006-13], [0027], [0056], [0059], Figs. 1-3, 5.</p> <p>The Jones reference also discloses a communications software module and a software application communicating through an API. The Jones reference states, for example, that “As described below in detail with reference to one or more of the embodiments illustrated in the drawings (as well as the above-referenced international patent application), the conference interface may be configured to provide any desirable content and/or functionality and may support various user interface and/or conferencing features, including conference record/playback features, an “always on” record mode, and various methods for enabling a participant to join a conference already in progress. “ Jones reference at 0026. <i>See also, e.g.</i>, 028 chart for Jones reference at [0053], [0059].</p> <p>The Jang reference also discloses a communications software module and a software application communicating through an API. The Jang reference states, for example, that “[t]he control unit 220 receives a selection signal entered via the keypad input unit 240 by using the interface program and recognizes the selection signal as a broadcasting control selection signal.” Jang 0017. <i>See also, e.g.</i>, 028 chart for Jang reference at Abstract, [0009-10], [0016-25], [0027], Claims 1-4, Figs. 2-3.</p> <p>A person of ordinary skill in the art would understand that an API is a commonly used mechanism through which software programs and modules communicate. For example, the ‘028 patent itself references prior art to the patent that utilized an API to enable a software module to receive API inputs from a software application, such as Riemann (2006/0095332) at Figs. 1-2, Abstract, 2, 4-5, 13, 21-23.42-45.</p> <p>To the extent a combination is required, it would have been obvious for one of ordinary skill to combine Munje with any of the references described above. One of ordinary skill would have been motivated to do so, among other reasons, to achieve the benefit of providing a means for the embeddable communication software module</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>and the software application to communicate. Munje and the references described above belong to the same field of endeavor (communication by means of streaming media), and all describe systems and methods for creating, transmitting, receiving, rendering, and/or storing streaming media. To the extent a combination is required, it would have been obvious person of ordinary skill in the art to combine Munje with any of the references discussed above, and such a person would have been motivated to do so. Applying the teachings of such references would have involved nothing more than the application of known techniques to a known method ready for improvement to yield predictable results.</p>
<p>12[b] receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient;</p>	<p>Munje discloses receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. <i>See, e.g.:</i></p> <p>“Methods and apparatus for automatically recording Push-To-Talk (PTT) voice communications for replay in a mobile station are described herein. In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT deque message following the voice data. The processor is operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message, and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT deque message. Subsequently, in response to detecting a user actuation of the PTT replay switch, the processor causes the voice data of the PTT voice communication to be retrieved from the memory and audible voice signals corresponding to the voice data to be output from the speaker.” Munje, at [0007]</p> <p>“End users use GLMS 308 to manage groups, contact lists, and access lists. A contact list is a type of address book that may be used by end users to establish an instant talk session with other PoC users or PoC Groups. An end user may have one or several contact lists including identities of other PoC users or PoC groups. Contact list management includes operations to allow UE 302 to store and retrieve the contact lists located in GLMS 308. End users can define PoC groups. An end user may select one group from the list to initiate an instant</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>group talk session or a chat group talk session, depending on the type of group. An access list is used by the end user as a means of controlling who is allowed to initiate instant talk sessions to the end user. An access list contains end user defined identities of other end users or groups. The end user may have one blocked identities list and one granted identities list.” Munjie, at [0045]</p> <p>End users may initiate PoC talk sessions. An INVITE request on the Is interface contains an "AcceptContact" header with a media feature tag indicating the PoC service. IMS core 312 is able to identify the request as a PoC communication by inspecting the Accept-Contact header. A Request-URI of the INVITE contains either the pre-configured ad-hoc identity (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group talk). Early session establishment is used for having a session available for quick connection establishment using "REFER". The early session establishment's INVITE does not have any referred party field and can be differentiated from this against other INVITEs. A transient group identity is generated by PoC server 304 and distributed to UE 302 in the "Contact" header. From an initiating UE 302, the public user identity of the inviting user is included in the "From" header. On the signaling towards the invited user, the "From" header includes either the public user identity (instant personal talk, ad-hoc instant group) or the group identity (instant group talk or being added to a chat group).” Munje, at [0049].</p> <p>“The plurality of keys also include a PTT voice communication switch 450. In this embodiment, PTT switch 450 is located on a right hand side of housing 802. When PTT switch 450 is depressed by an end user, the mobile station initiates a PTT voice communication through the wireless network. After PTT switch 450 depression, audible voice signals are received at the microphone of the mobile station and voice signals are transmitted through the wireless network and heard at certain other mobile stations. Unlike traditional telephone calls, PTT voice communications are relatively immediate and do not require the entry or selection of the recipient's telephone number.” Munje, at [0060].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0026]; Harwell [9:65]; Cropper [31:10]; Uehara [0098]; Eto [0065]; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>

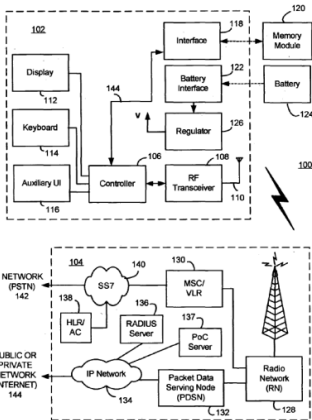
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>Moreover, if a combination were required, Jones renders this claim limitation obvious in view of numerous prior art references that disclose, receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. Long before the alleged invention of the '028 patent, it was well known that systems could be arranged to send such notifications.</p> <p><i>See, e.g.</i>, citations contained in 028 chart for Bulhuis reference at claim 5[a]; Manber reference at claim 5[a]; Munje reference at claim 5[a]; Othmer reference at claim 5[a]; Peltari reference at claim 5[a]; Milgramm reference at claim 5[a]; and Rand reference at claim 5[a].</p> <p>A person of ordinary skill in the art would understand that a communications software module can be arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. For example, the '028 patent itself references prior art to the patent that discloses a communications software module arranged to receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient, such as Katis 1 at 28-31, 55-56.</p>
<p>12[c] record outgoing media created by a user;</p>	<p>Munje discloses recording outgoing media created by a user. <i>See, e.g.</i>:</p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, at [0074].</p> <p>“A mobile station, comprising: a wireless transceiver adapted to operate within a wireless communication network; one or more processors; memory coupled to the one or more processors; a user interface which</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>includes: a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver; a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory; a speaker for outputting audible voice signals; the wireless transceiver being operative to: receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; receive a PTT dekey message following the voice data; the one or more processors being operative to: cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, claim 10.</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0014]; Harwell [9:65]; Cropper [30:3]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>A person of ordinary skill in the art would understand that a communications software module can be arranged to record outgoing media created by a user. For example, the ‘028 patent itself references prior art to the patent that disclosed a communications software module arranged to record outgoing media created by a user, such as Katis 1 at 38-40.</p>
<p>12[d] progressively transmit the outgoing media to a remote communications device associated with the message recipient while the outgoing media is being created by the user, wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application; and</p>	<p>Munje discloses progressively transmit the outgoing media to remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. <i>See, e.g.</i>:</p> <p>End users may initiate PoC talk sessions. An INVITE request on the Is interface contains an "AcceptContact" header with a media feature tag indicating the PoC service. IMS core 312 is able to identify the request as a PoC communication by inspecting the Accept-Contact header. A Request-URI of the INVITE contains either the pre-configured ad-hoc identity (for instant personal talk and ad-hoc instant group) or a group identity (for instant group talk or chat group talk). Early session establishment is used for having a session available for quick connection establishment using "REFER". The early session establishment's INVITE does not have any referred party field and can be differentiated from this against other INVITEs. A transient group identity is</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>generated by PoC server 304 and distributed to UE 302 in the "Contact" header. From an initiating UE 302, the public user identity of the inviting user is included in the "From" header. On the signaling towards the invited user, the "From" header includes either the public user identity (instant personal talk, ad-hoc instant group) or the group identity (instant group talk or being added to a chat group)." Munje, at [0049].</p> <p>"The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate." Munje, at [0074].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Bluvband [0017]; Belanger [0026]; Harwell [9:65]; Cropper [29:23]; Kono [0016]; Minamide [0040]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>Moreover, if a combination were required, Jones renders this claim limitation obvious in view of numerous prior art references that disclose, receive recipient identity information from the software application, the recipient identity information indicating an identity of a message recipient. Long before the alleged invention of the '028 patent, it was well known that systems could be arranged to send such notifications.</p> <p><i>See, e.g.</i>, citations contained in 028 chart for Bulthuis reference at claim 5[c]; Manber reference at claim 5[c]; Munje reference at claim 5[c]; Othmer reference at claim 5[c]; Pelttari reference at claim 5[c]; Milgramm reference at claim 5[c]; and Rand reference at claim 5[c].</p>

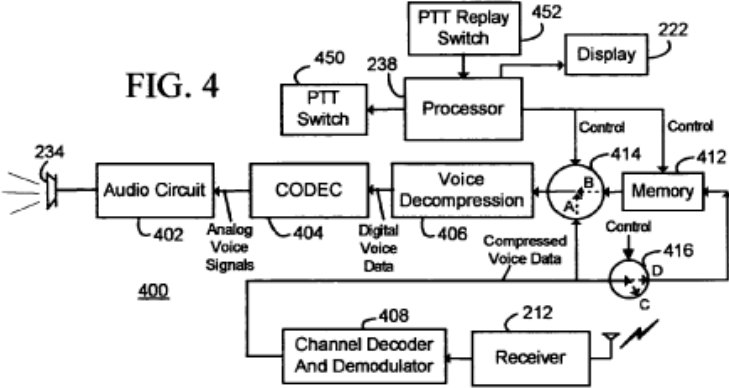
Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>A person of ordinary skill in the art would understand that a communications module can be arranged to progressively transmit the outgoing media to remote device while the outgoing media is being created by the user wherein the message recipient of the outgoing media is identified by the recipient identity information received from the software application. For example, the '028 patent itself references prior art to the patent that utilized a communications module that can, in response to the received message, send a notification to a software application based on the incoming message behavior policy, such as Katis 1 at 0028-0031, 0055-0056.</p>
<p>12[e] progressively store the outgoing media while the outgoing media is being created and transmitted,</p>	<p>Munje discloses progressively store the outgoing media while the outgoing media is being created and transmitted. <i>See, e.g.:</i></p> <p>“The mobile station may also save its own PTT voice communications in its memory in a similar manner, in sequence along with the PTT voice communications received through its receiver. This option provides a more complete history of PTT voice communications stored in memory. In this case, steps 604 and 630 of FIG. 6 correspond to detecting PTT button depressions and PTT button releases, respectively, at the user interface of the mobile station. Upon PTT button depression, the processor causes the voice data of the PTT voice transmission to be stored in the memory simultaneously with its transmission. This voice data may be voice compressed data from an output of its voice compressor (i.e. the same form as the received PTT voice communications). The processor also sets the identification of the PTT voice communication as the mobile station's ID, the date stamp, the time stamp, etc., as appropriate.” Munje, [0074].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.,</i> Katis 1; Katis 2; Bluvband [0017]; Harwell [10:6]; Cropper [29:19]; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p> <p>A person of ordinary skill in the art would understand that a communications module can be arranged to progressively store the outgoing media while the outgoing media is being created and transmitted. For example, the '028 patent itself references prior art to the patent that utilized a communications module that can be</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	arranged to progressively store the outgoing media while the outgoing media is being created and transmitted, such as Katis 1 at 28-31, 38-40, 52-56.
<p>12[f] wherein the software application is separate from the communication system that is accessed through the embeddable communications software module.</p>	<p>Munje the software application is separate from the communication system that is accessed through the embeddable communications software module. <i>See, e.g.:</i></p> <p>“In one illustrative example, a mobile station includes a wireless transceiver which operates with a wireless communication network; a processor; memory coupled to the processor; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver which is stored in the memory, and a speaker for outputting audible voice signals.” Munje, at [007].</p> <p>“The wireless transceiver is operative to receive a PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the voice data.” Munje, at [007].</p> <p>“FIG. 1 is a block diagram which illustrates pertinent components of a mobile station and a wireless communication network;” Munje, at [0010].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="659 277 705 293">FIG. 1</p>  <p data-bbox="600 813 2028 992">“FIG. 1 is a block diagram of a communication system 100 which includes a mobile station 102 which communicates through a wireless communication network 104. Mobile station 102 preferably includes a visual display 112, a keyboard 114, and perhaps one or more auxiliary user interfaces (UI) 116, each of which is coupled to a controller 106. Controller 106 is also coupled to radio frequency (RF) transceiver circuitry 108 and an antenna 110.” Munje, [0021].</p> <p data-bbox="600 1036 2028 1252">“Mobile station 102 may consist of a single unit, such as a data communication device, a cellular telephone, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem.” Munje, at [0025].</p> <p data-bbox="600 1295 2028 1360">“Mobile station 102 communicates in and through wireless communication network 104, which is preferably a cellular telecommunications network.” Munje, at [0026].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="611 289 1150 662" data-label="Diagram"> </div> <p>“FIG. 2 is a detailed block diagram of a preferred mobile station 202. Mobile station 202 is preferably a two-way communication device having at least voice and advanced data communication capabilities, including the capability to communicate with other computer systems. Depending on the functionality provided by mobile station 202, it may be referred to as a data messaging device, a two-way pager, a cellular telephone with data messaging capabilities, a wireless Internet appliance, or a data communication device (with or without telephony capabilities). Mobile station 202 may communicate with any one of a plurality of base station transceiver systems 200 within its geographic coverage area. Mobile station 202 selects or helps select which one of base station transceiver systems 200 it will communicate with, as will be described in more detail later in relation to FIGS. 3 and 4.” Munje, [0032].</p> <p>“Mobile station 202 will normally incorporate a communication subsystem 211, which includes a receiver 212, a transmitter 214, and associated components, such as one or more (preferably embedded or internal) antenna elements 216 and 218, local oscillators (LOs) 213, and a processing module such as a digital signal processor (DSP) 220. Communication subsystem 211 is analogous to RF transceiver circuitry 108 and antenna 110 shown in FIG. 1. As will be apparent to those skilled in field of communications, particular design of communication subsystem 211 depends on the communication network in which mobile station 202 is intended to operate.” Munje, [0033].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>“Mobile station 202 may send and receive communication signals over the network after required network registration or activation procedures have been completed.” Munje, at [0034].</p> <p>“Network access is associated with a subscriber or user of mobile station 202, and therefore mobile station 202 requires a memory module 262, such as a Subscriber Identity Module or "SIM" card or a Removable User Identity Module (R-UIM), to be inserted in or connected to an interface 264 of mobile station 202 in order to operate in the network. Alternatively, memory module 262 may be a non-volatile memory which is programmed with configuration data by a service provider so that mobile station 20 may operate in the network. Since mobile station 202 is a mobile battery-powered device, it also includes a battery interface 254 for receiving one or more rechargeable batteries 256. Such a battery 256 provides electrical power to most if not all electrical circuitry in mobile station 202, and battery interface 254 provides for a mechanical and electrical connection for it. The battery interface 254 is coupled to a regulator (not shown in FIG. 2) which provides power V+ to all of the circuitry.” Munje, [0035].</p> <p>“Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202. This control includes network selection techniques of the present application. Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide “resident” or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.” Munje, [0036].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p data-bbox="737 440 831 472">FIG. 4</p>  <p data-bbox="598 818 2026 1073">“ FIG. 4 is a schematic block diagram of pertinent electrical components 400 of the mobile station of FIGS. 1-2 for automatically recording PTT voice communications for replay. As shown, electrical components 400 include speaker 234, an audio circuit 402, a coder/decoder (CODEC) 404, a voice decompressor 406, a switch 414, a memory 412, a switch 416, a channel decoder and demodulator 408, a receiver 212, processor 238, and a user interface which includes display 222, a PTT communication switch 450, and a PTT replay switch 452, all coupled together as shown. Receiver 212 receives RF signals from the wireless network through the antenna.” Munje, at [0051].</p> <p data-bbox="598 1114 2026 1369">“The plurality of keys also include a PTT voice communication switch 450. In this embodiment, PTT switch 450 is located on a right hand side of housing 802. When PTT switch 450 is depressed by an end user, the mobile station initiates a PTT voice communication through the wireless network. After PTT switch 450 depression, audible voice signals are received at the microphone of the mobile station and voice signals are transmitted through the wireless network and heard at certain other mobile stations. Unlike traditional telephone calls, PTT voice communications are relatively immediate and do not require the entry or selection of the recipient's telephone number.” Munje, at [0060].</p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<div data-bbox="625 337 1033 998" data-label="Diagram"> <pre> graph TD 602([Start]) --> 604{PTT Key Message?} 604 -- No --> 604 604 -- Yes --> 606[Receive Sender Identification] 606 --> 608[Enable Voice And Audio Circuits] 608 --> 610{Recording Enabled?} 610 -- Yes --> 618[Set Switch To Store PTT Voice Data In Memory] 618 --> 620[Identify And Store Sender Identification] 620 --> 622[Store Sequence Counter, Date Stamp, Time Stamp, Etc.] 622 --> 624[Set Start Marker At Current Input Pointer Address] 624 --> 626[Receive PTT Voice Data] 626 --> 628[Store PTT Voice Data In Memory] 628 --> 630{PTT Dekey Message?} 630 -- No --> 626 630 -- Yes --> 632[Set End Marker At Current Input Pointer Address] 632 --> 634[Set Switch To Terminate Voice Storage] 634 --> 616[Disable Voice And Audio Circuits] 616 --> 604 610 -- No --> 612[Receive PTT Voice Data] 612 --> 614{PTT Dekey Message?} 614 -- No --> 612 614 -- Yes --> 616 </pre> </div> <p data-bbox="877 511 940 535">FIG. 6</p> <p data-bbox="598 1117 2020 1404"> “The processor then identifies whether recording for PTT voice communications is enabled for the mobile station (step 610 of FIG. 6). The recording feature may be an option and may be selectable and settable by a service provider or end user at the user interface of the mobile station. The recording feature may be indicated as a saved "bit flag" in memory of the mobile station. If the processor identifies that the recording feature is not enabled as tested in step 610, then conventional PTT voice communication processing is performed. In this case, voice data for the PTT voice communication is received through the wireless transceiver (step 612 of FIG. 6). This voice data is processed so that audible voice signals are heard from the speaker of the mobile station. For example, RF signals carrying the voice data may be processed by receiver 212, channel decoder </p>

Claim	Exemplary Evidence of Anticipation and/or Obviousness
	<p>and demodulator 408, voice decompressor 406, CODEC 404, and audio circuit 402 so that audible voice signals are delivered through speaker 234 of FIG. 4.” Munjie, at [0068].</p> <p>“A wireless communication system of the present application includes a wireless communication network; a Push-to-talk (PTT) server coupled in the wireless network; and one or more mobile stations which operate in the wireless communication network. Each mobile station includes a wireless transceiver which operates with the wireless communication network; one or more processors; memory coupled to the one or more processors; and a user interface which includes a Push-To-Talk (PTT) switch for transmitting a PTT voice communication through the wireless transceiver, a PTT replay switch for replaying a PTT voice communication previously received through the wireless transceiver and stored in the memory, and a speaker for outputting audible voice signals. The wireless transceiver is operative to receive PTT key message; receive voice data of a PTT voice communication following the PTT key message; and receive a PTT dekey message following the PTT voice communication. The one or more processors are operative to cause the voice data of the PTT voice communication to be recorded in the memory based on receiving the PTT key message; and cause the recording of voice data of the PTT voice communication to be terminated based on receiving the PTT dekey message.” Munje, at [0080].</p> <p>To the extent this limitation is not expressly and/or inherently disclosed, such limitation is obvious, even without resorting to the disclosures of any other reference, because it was within the common knowledge of persons of ordinary skill in the art, and was used in the claims according to known methods, to achieve predictable results. <i>See, e.g.</i>, Katis 1; Katis 2; Red 5; LibStreaming; Cisco CUCM; Cisco CUPS; Cisco Unity; IBM SameTime; Avaya Aura; Simens Open Space; Android-recorder.</p>